

O/C



Date: 30th September, 2026
Ref: HMEL-OE-40-ENV 1383

To,

Environmental Engineer,
Punjab Pollution Control Board
3rd Floor, Room No: 406E,
District Administrative Building,
Bathinda- Regional Office,
Bathinda.

Received
30/09/2026

Subject: Environmental Statement for the financial year ending 31st March 2026 for GGSR.

Dear Sir,

Please find the enclosed Environmental Statement FY2025-26 for Guru Gobind Singh Refinery (GGSR), Bathinda as per "The Environment (Protection) Rules, 1986".

Thanking you,

Very truly yours

Jatinder Kumar
(Manager –Env.)

Encl: 1. Environmental Statement **Form-V**.

Cc: Ministry of Environment, Forest & Climate Change, Northern Regional Office, Bays No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160 030.

HPCL-Mittal Energy Limited

Environmental Statement for FY 2025-26

FORM-V
(See Rule 14)

Environmental Statement for the financial year ending on 31st March 2026.

PART - A

- (i) Name and address of the owner/ occupier of the industry operation or process:

Mr. Prabh Das,
MD & CEO,

Corporate Address:

HPCL-Mittal Energy Limited
The Rise, 17 B&C, Film City, Sector 16A
NOIDA-201301 (U.P.), India

Plant Address:

HPCL-Mittal Energy Limited
Guru Gobind Singh Refinery
Village Phullokharī
Taluka: Talwandi Saboo
District Bathinda – 151301, PUNJAB,
INDIA.

- (ii) Industry category Primary: (STC Code) Secondary- (SIC Code):

SIC Code 2911: Petroleum Refinery.

- (iii) Production capacity- Units:

11.25 MMTPA (Crude processing capacity)

- (iv) Year of establishment:

April 2012

- (v) Date of the last environmental statement submitted:

30th September 2025

PART - B

Water and Raw Material Consumption:

1. Water consumption m³/ day
 - Process : 24645 m³/day (Refinery - 18778 m³/day, Petchem – 5866 m³/day)
 - Cooling : 60162 m³/day (Refinery - 23702 m³/day, Petchem – 36460 m³/day)
 - Domestic : 2082 m³/day
 - Fire Water : 1586 m³/day

Name of products	Process water consumption per unit of product output	
	During the current Financial Year (2024-25)	During the current Financial Year (2025-26)
1. LPG 2. Naphtha 3. Hexane 4. MS 5. SKO 6. ATF 7. Motor Turpentine Oil 8. HSD 9. Polypropylene 10. Bitumen 11. Pet Coke 12. Sulphur 13. Benzene 14. LSFO 15. PP 16. HDPE 17. LLDPE/HDPE	2.41 m ³ / MT	3.18 m ³ / MT

Note: Total 30954407 m³/Annum water consumption for total production 9730000 MT/Annum during FY 2025-26.

2. Raw Material Consumption:

Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the current Financial Year (2024-25)	During the current Financial Year (2025-26)
(Crude Oil+ Naptha+ Natural Gas)	1. LPG 2. Naphtha 3. Hexane 4. MS VI 5. SKO 6. ATF 7. Motor Turpentine Oil 8. HSD 9. Polypropylene 10. Bitumen 11. Pet Coke 12. Sulphur 13. Benzene 14. LSFO 15. PP 16. HDPE 17. LLDPE/HDPE	1.19 MT/MT	1.16 MT/MT

PART - C

Pollution discharged to environment/ unit of output.

(Parameter as specified in the consent issued)

Pollution	Quantity of pollutants Discharged (Mass/ day) (kg/day)	Concentration of pollutants in discharges (Mass/ volume) (kg/m ³)	Percentage of variation from prescribed standards with reasons
—			

(a) Water- Treated Water from ETP is recycled / reused inside the refinery.

Pollutant	Pollutant in kg/day	Pollutant in kg/m3
Oil & Grease	11.55	0.0014
BOD	BDL	BDL
COD	495.10	0.0620
Suspended Solids	104.56	0.0131
Phenols	3.02	0.0004
Sulphides	1.93	0.0002
Hg	BDL	BDL

Zn	BDL	BDL
Ni	BDL	BDL
Cu	BDL	BDL
V	BDL	BDL
Cyanide	BDL	BDL
TKN	4.89	0.0006
Ammonia	57.27	0.0072
Phosphate	10.16	0.0013
Hexavalent chromium	BDL	BDL
Total chromium	BDL	BDL
Lead	BDL	BDL
Benzene	BDL	BDL
Benzo(a)pyrene	BDL	BDL

Water- Treated Water from ETP is recycled / reused inside the Petrochemical complex:

Pollutant	Pollutant in kg/day	Pollutant in kg/m3
Oil & Grease	10.23	0.0037
BOD	BDL	BDL
COD	179.99	0.0647
Suspended Solids	39.02	0.0140
Phenols	0.56	0.0002
Sulphides	0.58	0.0002
Hg	BDL	BDL
Zn	BDL	BDL
Ni	BDL	BDL
Cu	BDL	BDL
V	BDL	BDL
Cyanide	BDL	BDL
TKN	1.85	0.0007
Ammonia	20.29	0.0073
Phosphate	3.58	0.0013
Hexavalent chromium	BDL	BDL
Total chromium	BDL	BDL
Lead	BDL	BDL
Benzene	BDL	BDL
Benzo(a)pyrene	BDL	BDL

* BDL- Below Detectable Limit

(b) Air SO₂ emissions Average 18-19 MT/day

PART - D

Hazardous Wastes

[As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016]

Hazardous Waste	Total Quantity	
Type of waste generated	During the current Financial Year (2024-25)	During the current Financial Year (2025-26)
(a) From process		
Spent catalyst and molecular sieves	8.79 MT	120.67 MT
Used or spent oil	92.1 MT	50.43 MT
Spent catalyst	1409.05 MT	976.28 MT
Contaminated cotton rags or other cleaning materials	2.04 MT	13.25 MT
Empty barrels/containers used for hazardous waste/chemicals.	24567 nos.	24979 nos.
Spent ion exchange resin containing toxic metals	12.37 MT	14.92 MT
Spent clay containing oil	535.02 MT	466.09 MT
Oil from wastewater treatment	Nil	445.43
Spent carbon or filter medium	Nil	21.78
Waste or residue containing oil	341 MT	360
Organic residues from processes	Nil	20.32
Slop Oil	3536 MT	3975.26
Waste exhibits any of the hazardous characteristics listed in class C due to presence of any hazardous constituents in the substances or wastes	Nil	18.29
(b) From Pollution Control Equipment		
Oily and grease skimming	7252 MT	8206 MT

(c) Recycled/Re-utilised/Disposed		
Hazardous Waste	Total Quantity	
Type of waste	Quantity Disposed in Financial Year 2024-25	Quantity Disposed in Financial Year 2025-26
Spent catalyst and molecular sieves	92.1 MT	120.67 MT
Used or spent oil	92.1 MT	25.17 MT
Spent catalyst	1409.05 MT	934.38 MT

Contaminated cotton rags or other cleaning materials	2.04 MT	13.25 MT
Empty barrels/containers used for hazardous waste/chemicals.	24567 nos.	24979 nos.
Spent ion exchange resin containing toxic metals	12.37 MT	14.92 MT
Waste or residue containing oil	341 MT	1331.88 MT
Organic residues from processes	Nil	20.32 MT
Spent carbon or filter medium	Nil	21.78
Waste exhibits any of the hazardous characteristics listed in class C due to presence of any hazardous constituents in the substances or wastes	Nil	18.29 MT
Spent clay containing oil	535.02 MT	466.09 MT
Hazardous Wastes Recycle/Reuse in process		
Oily and grease skimming	7252 MT	8206 MT
Slop Oil	3536 MT	3975.25 MT
Oil from wastewater treatment	Nil	445.43 MT

PART - E

Solid Waste

Solid Waste Type of Waste	Total Quantity	
	During the current Financial Year (in MT) (2024-25)	During the current Financial Year (in MT) (2025-26)
(a) From process		
Bottom Ash	123922.55	70956.76
Fly Ash	275643.5	154675.59
(b) From Pollution Control Equipment	Nil	Nil
(c) (1) Quantity recycled within the unit		
(2) Sold		
Scrap Metal	2693.92	3070.5
Scrap Wood	938.29	2022.2
Scrap Plastic	1461.79	1926.7
Scrap Glass	Nil	Nil
(3) Disposed		
Bottom Ash	122989.37	70771.16
Fly Ash	274377.72	154184.72

PART - F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Disposed Quantity

S. No.	Type of waste	Disposal Management
A.	Hazardous Waste	
1	Sludge containing oil	Disposed to SPCB registered recycler or Co-processing at Cement Industry.
2	Oily and grease skimming	Re-processed in DCU / Disposed in captive SLF
3	Used or spent oil	Disposed to SPCB registered recycler.
4	Spent catalyst	Disposed to SPCB registered recycler.
5	Contaminated cotton rags or other cleaning material	Used in firefighting training or Co-processing at Cement Industry
6	Empty barrels/containers used for hazardous waste/chemicals.	Drums returned to supplier or Disposed to SPCB registered recycler
7	Spent ion exchange resin containing toxic metals	Disposal in captive SLF or Co-processing at Cement Industry
8	Spent clay containing oil	Co-processed in cement industry
9	Chemical sludge from wastewater treatment	Disposal in captive SLF or Co-processing at Cement Industry
10	Spent catalyst and Molecular sieve	Disposed to SPCB registered recycler
11	Spent carbon and Filter medium	Disposal in captive SLF or Co-processing at Cement Industry
B.	Solid Waste	
1	Scrap Metal	Disposed to recyclers
2	Scrap Wood	Disposed to recyclers
3	Scrap Plastic	Disposed to recyclers
4	Scrap Glass	Disposed to recyclers
5	Bottom Ash	Co-processed at Cement Industry or brick manufacturing industry
6	Fly Ash	

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

The following pollution abatement measures taken on conservation of natural resources have been implemented:

Two Flare Gas Recovery System (FGRS) have been installed to recover HC flare gas from refinery & Petrochemical complex. Approximately 10.23 & 8.10 MT/day of HC flare gas was recovered from refinery and petrochemical flare during FY 2025–26. The recovered gas is used as fuel in heaters and boilers.

PART - H

Additional measures/investment proposal for environmental protection, abatement of pollution, prevention of pollution.

1. Advancement towards the use of renewable energy was evident by the existing renewable energy using roof top solar system.
2. HMEL strengthened its afforestation initiatives by planting sapling during World Environment Day 2025.
3. In CPP STG-1 and STG-2, we implemented an oil filtration program as an alternative to complete oil replacement, resulting in a substantial reduction of approximately 245,000 kg of CO₂ emissions. The oil filtration initiative was prompted by elevated NAS values in both machines, indicating the need for oil replacement. With a combined oil capacity of 70,000 liters, a full replacement would have had significant environmental implications. Based on a Lifecycle Assessment study, filtering 1 liter of oil prevents 3.5 kg of CO₂ emissions. This initiative successfully mitigated around 245,000 kg of CO₂ emissions, demonstrating the effectiveness of this sustainable maintenance practice.
4. We upgraded our OCEMS, 33 No's of IoT devices/data logger replacement completed for stacks and effluent real time monitoring.

PART - I

Any other particulars for improving the quality of the environment.

1. Road swapping machines are used for controlling the dust in atmosphere.
2. LDAR program for leak detection in pipelines & Tanks flanges/joints was conducted in Refinery and petrochemical plant to control fugitive emissions.